

Suggested Laboratory tests for depression

The following laboratory tests are recommended prior to the initiation of the medication protocol if they have not been obtained within the last six months. Medical illnesses are more common in those aged 60 and over. These labs will help rule out medical disorders that may present with signs and symptoms common also to those with depression.

TSH: Elevated TSH may indicate hypothyroidism which symptoms can range from the slowing of physical and mental functions, fatigue, lethargy, and apathy in mild hypothyroidism to severely slowed physical and mental reactions, and abnormal fatigue in a full-blown myxedema. Common affective manifestations include dysphoria, psychomotor agitation or retardation, sleep disturbances, crying spells, anhedonia, decreased libido, suicidal ideation. **Decreased TSH** may indicate hyperthyroidism which can include symptoms of weight loss, fatigue, weakness, and irritability.

ALT: (alanine aminotransferase) (SGPT) a measure of liver enzyme activity that frequently is the first biochemical abnormality appearing in patients experiencing liver dysfunction of multiple etiologies. **Elevated ALT** is a reflection of the leakage of alanine aminotransferase into the systemic circulation from damaged hepatocytes which may result from medical disorders as hepatitis and cirrhosis both of which have symptomatology that include weakness and fatigue, anorexia, and weight loss. In addition, hepatocyte impairment may result in decreased hepatic clearance of neurotoxins which can result in hepatic encephalopathy and its accompanying decreased mental alertness and confusion.

HEMATOCRIT: (HCT) Decreased HCT is an indicator of anemia which is the result of some underlying disorder as chronic infections, Cancer, renal and liver diseases, and bleeding ulcers. *Anemia can present with fatigue, depression, anorexia and weight loss.

B12: The most common cause of **decreased B12** is pernicious anemia, a condition that can develop years prior to a decline in the measurable B 12. As with other anemias, persistent fatigue is a common sign of pernicious anemia. A deficiency in B 12 may also manifest itself by other symptoms as mood disorders, confusion, and insomnia.

NA: Decreased serum NA-Hyponatremia-may result in irreversible brain injury in the elderly regardless of the primary etiology. Imbalances in NA can be a result of dehydration which itself can be induced by diuretics and some anti-depressants. Dehydration may initially present with confusion. Hyponatremia is also a risk factor for delirium which in its early stages can also be confused with depression.